

ORDINANCE NO. 45-998

AN ORDINANCE AMENDING SECTION 18.06.140 AND REPEALING THE ORIGINAL OF SAID AMENDED SECTION; CREATING SECTIONS 18.06.135, 18.06.282, 18.06.284 18.06.286, 18.06.322, 18.06.324, AND 18.06.326; AND REPEALING SECTION 18.06.320, ALL IN THE CODE OF THE CITY OF WICHITA, KANSAS, AND PERTAINING TO THE RESIDENTIAL BUILDING CODES OF THE CITY OF WICHITA, KANSAS.

BE IT ORDAINED BY THE GOVENING BODY OF THE CITY OF WICHITA, KANSAS:

**SECTION 1.** Section 18.06.135 of the Code of the City of Wichita is hereby created to read as follows:

“Section R303.1 of the International Residential Code, as adopted by reference herein, shall be amended to read as follows:

**R303.1 Habitable rooms.** All habitable rooms shall be provided with aggregate glazing area of not less than 8 percent of the floor area of such rooms. Natural ventilation shall be through windows, doors, louvers or other approved opening to the outdoor air. Such openings shall be provided with ready access or shall otherwise be readily controllable by the building occupants. The minimum openable area to the outdoors shall be 4 percent of the floor area being ventilated. In addition, in new dwellings and additions to existing one and two family dwellings where a new separate heating and/or cooling system is being added to serve, but not necessarily limited to only serve the new addition, an outside air duct shall be connected to the main return air duct,

prior to filter, of each heating and/or cooling system for the habitable space served. Duct size shall be based on the square footage of habitable space served as follows:

1. 1500 sq. ft. or less: 4 inch diameter or 12.6 square inches.
2. 1501 sq. ft. to 2000 sq. ft. 5 inch diameter or 19.6 square inches.
3. 2001 sq. ft. and larger 6 inch diameter or 28.3 square inches.

All areas listed exclude finished basement area. The outside air duct shall be provide with a 1/4" mesh inlet screen. The outside air duct shall not draw air from contaminated sources.

**Exception:**

~~4.~~ The glazed areas need not be in rooms where artificial light is provided capable of producing an average illumination of 6 footcandles (6.46 lux) over the area of the room at a height of 30 inches (762 mm) above the floor level.

**SECTION 2.** Section 18.06.140 of the Code of the City of Wichita is hereby amended to read as follows:

“Section R303.3 of the International Residential Code, as adopted by reference herein, shall be amended to read as follows:

**R303.3 Bathrooms.** Bathrooms, water closet compartments and other similar rooms shall be provided with aggregate glazing area in windows of not less than 3 square feet (0.279 m<sup>2</sup>), one-half of which must be openable.

**Exception:** The glazed areas shall not be required where artificial light and a mechanical exhaust system are provided. The minimum exhaust rates shall be fifty cfm (23.6 L/s) for intermittent exhaust or twenty cfm (9.4 L/s) for continuous exhaust. Exhaust air from the space shall be exhausted directly outside or into a properly ventilated attic as per Section R806 (amended). Ducts conveying exhaust into the attic shall terminate a minimum of 36" above the

top of the ceiling joist, turned vertically down and so located that exhaust does not discharge upon any building element. Exhaust duct run above the insulation inside of attic, with a developed length greater than 5 ft., shall be insulated.

**SECTION 3.** Section 18.06.282 of the Code of the City of Wichita is hereby created to read as follows:

“Section R806.1 of the International Residential Code, as adopted by reference herein, shall be amended to read as follows:

**R806.1 Ventilation required.** Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of the roof rafters shall be separately ventilated with ventilating openings. Ventilating openings shall be a combination of eave or cornice vents and roof ventilators. Eave or cornice vents shall be arranged to provide cross ventilation. Ventilation openings shall be protected against the entrance of rain or snow and shall be provided with corrosion-resistant wire mesh, with 1/8 inch (3.2 mm) minimum to 1/4 inch (6.35 mm) maximum openings.

**SECTION 4.** Section 18.06.284 of the Code of the City of Wichita is hereby created to read as follows:

“Section R806.2 of the International Residential Code, as adopted by reference herein, shall be amended to read as follows:

**R806.2 Minimum area.** The total net free ventilation opening area shall not be less than 1 sf of opening to 300 sf of the area of the space ventilated. Fifty percent of the required ventilating area shall be provided by ventilators located in the upper portion of the space to be ventilated with the balance of the required ventilation opening area provided by eave or cornice vents. Roof ventilators located in the upper portion of the space shall be at least 3 feet (914 mm) above

the eave or cornice vents.

**SECTION 5.** Section 18.06.286 of the Code of the City of Wichita is hereby created to read as follows:

“Section R806.3 of the International Residential Code, as adopted by reference herein, shall be amended to read as follows:

**R806.3 Vent Clearance.** Where eave or cornice vents are installed, insulation shall not block the free flow of ventilation air into the attic. A minimum of a 1-inch (25.4 mm) space shall be provided between the insulation and the roof sheathing at the location of the vent. The net cross section area of the space shall be equal to or greater than the free area of the eave or cornice vent it serves.

**SECTION 6.** Section 18.06.322 of the Code of the City of Wichita is hereby created to read as follows:

“Section M1601.2.1.1 of the International Residential Code, as adopted by reference herein, shall be created to read as follows:

**M1601.2.1.1 Duct Insulation R-Values.** All portions of the air distributions system shall be insulated in accordance with Section M1601. The R-values of the insulation shall be as per the following.

<b><u>R-Values of Duct Insulation</u></b>	
<b>Location of Duct</b>	<b>R-Value</b>
Inside of conditioned space	None
Inside of building envelope but outside of conditioned space	R-4.2
Outside of building envelope	R-6
In addition, insulation shall be applied to all ductwork located in an environment that may result in the formation of condensation when operated within the normal design limits of the system, including exhaust and outside air intake ductwork.	

**SECTION 7.** Section 18.06.324 of the Code of the City of Wichita, is hereby created to read as follows:

“Section M1601.3.1 of the International Residential Code, as adopted by reference herein, shall be as amended to read as follows:

**M1601.3.1 Joints and seams.** All Joints and seams of that portion of supply and/or return ductwork installed outside of the conditioned envelope shall be made substantially airtight by means of tapes, mastics, gasketing and other approved closure systems, commercially available and specially designed for sealing. "Duct Tape" is not acceptable.

**Exception:**

1. All longitudinal seams using Button lock, Pittsburgh lock, or equal need not be sealed. Joints and seams of supply and/or return ductwork installed inside of the conditioned envelope need not be sealed.

**Exceptions:**

1. All transverse joints of rectangular ducts not using S-lock and drive connections, or equal shall be sealed.

2. All longitudinal seams not using Button lock, Pittsburgh lock, or equal shall be sealed.
3. All branch takeoffs using a dovetail connection method without bead or screw flange of at least 1/2" shall be sealed.
4. All round duct longitudinal seams not using Button lock, Pittsburgh lock, Acme lock, or equal shall be sealed.
5. All round duct transverse joints not using a crimp and bead shall be sealed.
6. All connections or fittings made by joining of one round duct into a second round duct by cutting into the second duct, shall be sealed (for example, a saddle tee).

The method of sealing required for ductwork installed inside of a conditioned envelope shall be the same as sealing for ductwork installed outside of a conditioned envelope.

Closure systems used with rigid fibrous glass ducts shall comply with UL 181A and shall be marked "181A-P" for pressure-sensitive tape, "181 A-M" for mastic or "181 A-H" for heat-sensitive tape. Closure systems used with flexible air ducts and flexible air connectors shall comply with UL 181B and shall be marked "181B-FX" for pressure-sensitive tape or "181B-M" for mastic. Duct connections to flanges of air distribution system equipment or sheet metal fittings shall be mechanically fastened. Crimp joints for round ducts shall have a contact lap of at least 1.5 inches (38 mm) and shall be mechanically fastened by means of at least three sheet metal screws or rivets equally spaced around the joint.

**SECTION 8.** Section 18.06.326 of the Code of the City of Wichita, is hereby created to read as follows:

"Section M1701.5 of the International Residential Code, as adopted by reference herein, shall be as amended to read as follows:

**M1701.5 Opening area.** The free area of each opening shall be used for determining combustion air. Unless otherwise specified by the manufacturer or determined by actual

measurement, the free area shall be considered 50 percent of the gross area for metal louvers and 25 percent for the gross area for wood louvers.

**SECTION 9.** The original of Section 18.06.320 of the Code of the City of Wichita is hereby repealed.

**SECTION 10.** This ordinance shall be included in the Code of the City of Wichita, Kansas, and shall be published once in the official paper and become effective upon its publication.

ADOPTED at Wichita, Kansas, this FEBRURY 10, 2004..

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Carlos Mayans, Mayor

ATTEST:

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Karen Schofield, City Clerk

Approved as to form:

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Gary Rebenstorf, Director of Law